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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,381	10/16/2003	Robert Lec Barcus	9388	2125

27752 7590 02/10/2006

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EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,381

Applicant(s)

BARCUS ET AL.

Examiner

Dennis Cordray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1,2,4,6-8,10-12,15,17 and 19-20 rejected under 35 U.S.C. 102(b) as being anticipated by Kekish (3317370).

Kekish discloses a wet strength resin for use in papermaking comprising a terpolymer comprising

- a. an aldehyde containing monomer of the form $R_2CH=CR_1CHO$, where R_1 and R_2 can be H, a lower alkyl radical or halogen (col 3, lines 60-66). The monomer is represented in group A of the instant invention.
- b. a nitrogen heterocycle containing monomer such as a vinyl pyrrolidone (col 4, lines 6-14). The monomer is represented in group W of the instant invention.
- c. a monomer containing a hydrophilic group such as a hydroxyl group such as hydroxyethyl (meth)acrylate (col 6, lines 34-40 and 43-51). The monomer is represented in group Z of the instant invention.

Kekish further discloses that each monomer can be present from 10-70 mole percent (col 6, lines 59-62). Kekish also discloses that the terpolymer can be partially cationized by reaction with a water soluble amine or amine quaternary in the ratio of copolymer/amine reactant of 50:1 to 1:1 (col 5, line 69-col 6, line 11; col 6, lines 63-65). Thus, some of the monomers are made cationic. The disclosed compositions significantly overlap the claimed composition.

Kekish discloses a process comprising adding the cationized terpolymer to a fibrous paper suspension in the amount from 0.001 to 10% (col 7, lines 49-56), forming a mat and draining to make a paper (Claim 3). Kekish also discloses paper made using the process (col 9, Example III).

Claims 1,2,4,5,10,11,15,17 and 19-20 rejected under 35 U.S.C. 102(b) as being anticipated by Mills (3347832).

Mills discloses a wet strength resin for use in papermaking comprising a terpolymer (col 1, lines 26-38) comprising

- d. an ammonium salt. The monomer is represented in group Q of the instant invention.
- e. an ethylenically unsaturated aldehyde. The monomer is represented in group A of the instant invention.
- f. a dissimilar ethylenically unsaturated monomer that can contain a hydroxyl, such as vinyl phenol or 1,4-butanediol dimethacrylate (col 4, lines 5 -15) The monomer can be the homo-crosslinking monomeric unit of the instant invention; the 1,4-butanediol dimethacrylate can be represented in group Z of the instant invention.

Mills further discloses that monomer d can be present from 1-50 percent, e can be present from 3-45% and f can be present from 1-45% in the terpolymer (col 4, lines 59-63). The disclosed compositions significantly overlap the claimed composition.

Mills discloses a process comprising adding the cationized terpolymer to a fibrous paper suspension (col 7, lines 15-17). Forming and draining a mat to make a paper is an inherent part of the papermaking process. Mills also discloses paper made using the process (cols 8-12, Examples I-XIII).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9,13,14,16 and18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kekish or Mills in view of Bjorquist et al (4603176) and Bjorquist (4981557).

Kekish and Mills do not disclose an aldehyde-containing monomeric unit from the group presented in instant Claim 9. Kekish and Mills also do not disclose a single or multi-ply sanitary product, a surgical garment, or a method of making a sanitary tissue product. Kekish and Mills further do not disclose fibrous structures having the wet and dry tensile strength properties or the wet tensile decay properties of Claim 18.

Bjorquist et al ('176) discloses a process for making a three-layered tissue paper comprising a) providing a fiber furnish, b) forming an embryonic web on a wire, c) drying the embryonic web, and d) adding the temporary wet strength resin as described above

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to the furnish. Bjorkquist et al also discloses a tissue paper made using the temporary wet strength resin sheet (col 15, lines 24-68, Example VIII). Bjorkquist et al ('176) also teaches that wet strength is a desirable attribute in household tissues and disposable hospital wear (col 1, lines 10-12). Bjorkquist et al discloses several examples of fibrous structures comprising the temporary wet strength resin described above that have the Wet Tensile Loss properties and wet tensile strength/dry tensile strength ratio claimed (cols 13-15, Examples V-VII).

Bjorkquist ('557) discloses a temporary polymeric wet strength resin comprising pendant aldehyde containing groups of the form $-\text{CO}-\text{X}-\text{R}-\text{CHO}$ (Abstract), where X is $-\text{O}-$, $-\text{NH}-$, $-\text{NCH}_3-$, and R is a substituted or unsubstituted aliphatic group. The disclosed group is generic to the groups claimed in the instant application.

The art of Kekish, Mills, Bjorkquist et al ('176), Bjorkquist ('557) and the instant invention are analogous in that they pertain to wet strength resins having aldehyde functionality. It would have been obvious to one skilled in the art to use a monomer having a group of $-\text{CO}-\text{X}-\text{R}-\text{CHO}$ in the resin of Kekish or Mills in view of Bjorkquist ('557) as a functional equivalent option. It would also have been obvious to make sanitary tissue products and disposable surgical garments using the resins of Kekish or Mills in view of Bjorkquist ('176) to provide desirable use and disposal attributes to the products.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/958016. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application significantly overlap the invention claimed in the copending application. In particular:

Claims 1, 10, 15 and 17 of the copending application are related to claims 1, 10 and 17 of the instant application as genus and species, thus the claimed matter of the instant application is fully encompassed by that of the copending application.

Claim 2-3 of the instant application recites a molecular weight of at least 20,000 and up to 400,000, whereas Claim 2 of the copending application recites a molecular

weight of at least 70,000 and up to 400,000, which range significantly overlaps the claimed range of the instant application.

Claim 11 the instant application recites a molecular weight of at least 20,000, whereas Claim 2 of the copending application recites a molecular weight of at least 70,000, which significantly overlaps the claimed range of the instant application.

Claims 4-6, 9, 12-14 and 16 of both applications read the same.

Claims 7 and 8 of the instant application recite species that significantly overlap those in Claims 7 and 8 of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 18 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/958209 in view of Bjorquist et al (4603176).

Claim 18 of the instant application recites a fibrous structure comprising a temporary wet strength resin that has a percent total wet tensile decay after 5 minutes of at least about 35% or at least about 65% after 30 minutes, and/or an initial wet tensile strength/dry tensile strength ratio of at least about 7.

Claims 1-12 of the copending application recite a fibrous structure comprising a temporary wet strength resin that is generic to that claimed in instant Claim 18, the fibrous structure having a percent decay of greater than 45% at 5 minutes or greater

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than 65% at 30 minutes and an initial wet tensile strength of at least about 30 g/in. The percent decay encompasses that of instant Claim 18.

The copending application does not claim an initial wet tensile strength/dry tensile strength ratio.

Bjorquist et al discloses examples of a fibrous structure comprising a similar temporary wet strength resin that have the Wet Tensile Loss properties and wet tensile strength/dry tensile strength ratio recited in instant Claim 18 (cols 13-15, Examples V-VII).

Since the copending application and Bjorquist et al pertain to fibrous structures comprising wet strength resins, it would have been obvious to one skilled in the art to obtain the claimed properties.

This is a provisional obviousness-type double patenting rejection.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 19 is objected to under 37 CFR 1.75 as being a duplicate of claim 1.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after

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allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 20 is objected to under 37 CFR 1.75 as being a duplicate of claim 10.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Since Claim 20 depends from Claim 19, which recites the same wet strength resin as Claim 10, Claim 20 is coextensive in scope with Claim 10.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (Sobolev (3428617)). It pertains to other wet strength resins containing hydroxyl groups.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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